

Remarks

This Application has been carefully reviewed in light of the Office Action mailed March 10, 2004. Applicants believe all pending claims are allowable over the prior art of record without amendment. No amendments are made. Applicants respectfully provide these remarks.

Acknowledged Allowable Subject Matter

Applicant appreciates the Examiner's continued acknowledgement that Claims 12, 26, and 41 would be allowable if rewritten in independent form including all limitations of their base claims and any intervening claims.

The Claims are Allowable over *Linden* and *Breese*

The Examiner rejects Claims 1-5, 7-11, 13-25, 27-40, and 42-48 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,266,649 to Linden et al. ("*Linden*") in view of U.S. Patent 6,018,738 to Breese et al. ("*Breese*"). Applicants respectfully disagree.

A. Independent Claims

1. The proposed *Linden-Breese* combination fails to meet limitations recited in Applicants' independent claims

Linden fails to disclose, teach, or suggest numerous limitations specifically recited in Applicants' independent claims, some of which the Examiner acknowledges are absent from *Linden*. For example, *Linden* fails to disclose, teach, or suggest at least the following limitations specifically recited in independent Claim 1 (and substantially similar limitations specifically recited in independent Claims 5, 33, and 48):

- *the user request specifying a desired attribute value for each of one or more selected product attributes*
- *a search procedure operable to select a set of one or more candidate alternative products having attribute values consistent with the desired attribute values specified in the user request for the selected product attributes*
- *for each potential alternative product in a set of potential alternative products the search procedure operable to:*

for each selected product attribute, compare the desired attribute value specified in the user request with the attribute value for the potential alternative product to determine a attribute similarity value for the selected product attribute for the potential alternative product; and

determine a product similarity value for the potential alternative product according to the attribute similarity values, each attribute similarity value having been determined for a selected product attribute for which a desired attribute value is specified in the user request by comparing the desired attribute value specified in the user request with the attribute value for the potential alternative product;

the set of one or more candidate alternative products being selected according to the product similarity values for the potential alternative products, each product similarity value having been determined according to the attribute similarity values determined for each selected product attribute for which a desired attribute value is specified in the user request

- *a sort procedure operable to rank the one or more candidate alternative products in order of decreasing similarity to the requested product determined according to the product similarity values for the one or more candidate alternative products, each product similarity value having been determined according to the attribute similarity values determined for each selected product attribute for which a desired attribute value is specified in the user request*

In contrast, *Linden* merely discloses recommending items to a user based on a mapping, *previously performed in an "off-line" manner*, of a first set of items already known, *prior to any user request*, to be of interest to the user to a second set of items previously determined, *prior to any user request*, to be similar to the first set of items based on purchase history data. Not only does *Linden* fail to disclose, teach, or suggest determining similarities between items *using attribute values specified in a user request for individual product attributes* as specifically recited in independent Claim 1, *Linden* explicitly states that not relying on such attribute value comparisons provides an important advantage. Thus, *Linden* actually teaches away from the invention recited in independent Claim 1. In particular, *Linden* states that an important benefit of the disclosed recommendations service "is that the items need not contain any content that is amenable to feature extraction techniques For example, the method can be used to generate a similar items table given nothing more than the product IDs of a set of products and user purchase histories with respect to these products." (Column 13, Line 63 – Column 14, Line 3) Numerous additional

examples distinguishing *Linden* from the limitations specifically recited in Applicants' independent claims were excerpted and provided in a previous Response.

The Examiner relies on the requests disclosed in *Linden* at Column 7, Lines 10-12 against the recited "***user request specifying a desired attribute value for each of one or more selected product attributes.***" (Office Action, Page 3) Similarly, the Examiner equates "receiving a request for a product" as disclosed in *Linden* with receiving a "***user request specifying a desired attribute value for each of one or more selected product attributes***" as recited in independent Claim 1. (Final Office Action, Page 3) However, *Linden* provides absolutely no disclosure, teaching, or suggestion that the disclosed requests ***specify desired attribute values for selected product attributes*** as recited in independent Claim 1. As disclosed in *Linden*, each request merely represents a request for a particular product the user has already selected for purchase.

The Examiner acknowledges that *Linden* fails to teach "a user interface to allow the user to enter attributes to be searched on." (Office Action, Page 5) Applicants respectfully note that Applicants' claims generally involve receiving, searching, and comparing attribute ***values***, not attributes as the Examiner appears to suggest. In any event, the ability to receive from a user, search for, and compare attribute values is required to even begin to practice Applicants' claimed invention. Applicants respectfully submit that any reference such as *Linden* that fails to teach this capability, as the Examiner acknowledges, is so fundamentally lacking as a reference against Applicants' claims that any rejection based upon such a reference is clearly improper.

Furthermore, *Breese* fails to make up for these glaring deficiencies of *Linden*. *Breese* discloses that requiring a user request, as recited in independent Claim 1, is a ***drawback to be eliminated*** through the use of "collaborative filtering" techniques. (Column 1, line 59 – Column 2, line 3; Column 3, lines 40-46) Thus, like *Linden*, *Breese* actually teaches away from the invention recited in independent Claim 1. *Breese* also discloses that "collaborative filtering" upon which the *Breese* invention is based involves predicting values of ***unknown attributes*** (Column 2, lines 14-18; Column 3, lines 46-52; Column 4, lines 7-22; Column 6, lines 47-61), whereas independent Claim 1 recites no such prediction and instead recites receiving from the user, searching for, and comparing ***known attribute values***. In addition,

Breese makes no mention whatsoever of products or alternative products as recited in independent Claim 1, instead disclosing “entities” such as a user’s hardware or software environment, the user himself, or a group of logically related people. (Column 6, lines 1-5; Column 10, lines 46-49)

Independent Claim 1 specifically recites determining similarities between items *using attribute values specified in a user request for individual product attributes*. *Breese*, like *Linden*, fails to disclose, teach, or suggest even this basic element recited in independent Claim 1 and actually teaches away from this element. For at least this reason, the proposed *Linden-Breese* combination is plainly inadequate to support the rejection of independent Claim 1 and Applicants’ other independent claims.

Furthermore, as the numerous excerpts from *Linden* provided in a previous Response make clear, none of the operations disclosed in *Linden* involve:

- *a search procedure operable to select a set of one or more candidate alternative products having attribute values consistent with the desired attribute values specified in the user request for the selected product attributes*
- *for each potential alternative product in a set of potential alternative products the search procedure operable to:*

for each selected product attribute, compare the desired attribute value specified in the user request with the attribute value for the potential alternative product to determine a attribute similarity value for the selected product attribute for the potential alternative product; and

determine a product similarity value for the potential alternative product according to the attribute similarity values, each attribute similarity value having been determined for a selected product attribute for which a desired attribute value is specified in the user request by comparing the desired attribute value specified in the user request with the attribute value for the potential alternative product;

the set of one or more candidate alternative products being selected according to the product similarity values for the potential alternative products, each product similarity value having been determined according to the attribute similarity values determined for each selected product attribute for which a desired attribute value is specified in the user request

- *a sort procedure operable to rank the one or more candidate alternative products in order of decreasing similarity to the requested product determined according to the product similarity values for the one or more candidate alternative products, each product similarity value having been determined according to the attribute similarity values determined for each selected product attribute for which a desired attribute value is specified in the user request*

Applicants again respectfully submit that the portions of *Linden* on which the Examiner relies are clearly insufficient to support the rejection of independent Claim 1. *Breese* fails to make up for these glaring deficiencies of *Linden*, and the Examiner has rightly not alleged that *Breese* provides the disclosure, teaching, or suggestion missing from *Linden* with respect to these recited claim limitations. For at least this additional reason, the proposed *Linden-Breese* combination is plainly inadequate to support the rejection of independent Claim 1 and Applicants' other independent claims.

Applicants respectfully address the Examiner's statements in the "Response to Arguments" section of the Office Action.

The Examiner states that *Breese* teaches "user defined attributes entered through an input interface." (Office Action, Page 19) As shown above, *Breese* fails to disclose, teach, or suggest, and actually teaches away from, requiring a user request as recited in independent Claim 1. In any event, *Breese* certainly fails to disclose, teach, or suggest, as specifically recited in Claim 1:

- *the user request specifying a desired attribute value for each of one or more selected product attributes*

The Examiner also states that *Breese* teaches "a search procedure," "use of user-defined attributes," and "matching," relying on Column 10, lines 1-7 of *Breese*. (Office Action, Page 19) Even if *Breese* disclosed these gross over-simplification of the language recited in independent Claim 1, which Applicants dispute, the Examiner still has not demonstrated nor even alleged that *Breese* discloses, teaches, or suggests, as specifically recited in Claim 1:

- *a search procedure operable to select a set of one or more candidate alternative products having attribute values consistent with the desired*

attribute values specified in the user request for the selected product attributes

for each potential alternative product in a set of potential alternative products the search procedure operable to:

for each selected product attribute, compare the desired attribute value specified in the user request with the attribute value for the potential alternative product to determine a attribute similarity value for the selected product attribute for the potential alternative product; and

determine a product similarity value for the potential alternative product according to the attribute similarity values, each attribute similarity value having been determined for a selected product attribute for which a desired attribute value is specified in the user request by comparing the desired attribute value specified in the user request with the attribute value for the potential alternative product;

the set of one or more candidate alternative products being selected according to the product similarity values for the potential alternative products, each product similarity value having been determined according to the attribute similarity values determined for each selected product attribute for which a desired attribute value is specified in the user request

The Examiner also states that *Breese* teaches “sorting and ranking” and “use of user-defined attributes,” relying on Column 10, lines 1-7 of *Breese*. (Office Action, Page 19) Again, even if *Breese* disclosed these gross over-simplification of the language recited in independent Claim 1, which Applicants dispute, the Examiner still has not demonstrated nor even alleged that *Breese* discloses, teaches, or suggests, as specifically recited in Claim 1:

- ***a sort procedure operable to rank the one or more candidate alternative products in order of decreasing similarity to the requested product determined according to the product similarity values for the one or more candidate alternative products, each product similarity value having been determined according to the attribute similarity values determined for each selected product attribute for which a desired attribute value is specified in the user request***

For at least the above reasons, Applicants respectfully request reconsideration and allowance of independent Claims 1, 5, 33, and 48.

2. The proposed *Linden-Breese* combination is improper

Even if it would have been possible to combine the teachings of *Linden* and *Breese*, which Applicants do not admit, the rejection would still be improper because the Examiner has not shown the required teaching, suggestion, or motivation in *Linden*, in *Breese*, or in knowledge generally available to those of ordinary skill in the art at the time of the invention to combine *Linden* with *Breese* in the manner the Examiner proposes. Independent Claims 1, 5, 33, and 48 are also allowable for at least this additional reason.

The question raised under 35 U.S.C. § 103 is whether the prior art taken as a whole would suggest the claimed invention taken as a whole to one of ordinary skill in the art at the time of the invention. Accordingly, even if all elements of a claim are disclosed in various prior art references, which is certainly not the case here as discussed above, the claimed invention taken as a whole cannot be said to be obvious without some reason given in the prior art why one of ordinary skill at the time of the invention would have been prompted to modify the teachings of a reference or combine the teachings of multiple references to arrive at the claimed invention.

The M.P.E.P. sets forth the strict legal standard for establishing a *prima facie* case of obviousness based on modification or combination of prior art references. "To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references where combined) must teach or suggest all the claim limitations." M.P.E.P. § 2142, 2143. The teaching, suggestion, or motivation for the modification or combination and the reasonable expectation of success must both be found in the prior art and cannot be based on an applicant's disclosure. *See Id.* (citations omitted). "Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art" at the time of the invention. M.P.E.P. § 2143.01. Even the fact that references *can* be modified or combined does not render the resultant

modification or combination obvious unless the prior art teaches or suggests the desirability of the modification or combination. *See Id.* (citations omitted). Moreover, "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. All words in a claim must be considered in judging the patentability of that claim against the prior art." M.P.E.P. § 2143.03 (citations omitted).

The governing Federal Circuit case law makes this strict legal standard even more clear.¹ According to the Federal Circuit, "a showing of a suggestion, teaching, or motivation to combine or modify prior art references is an essential component of an obviousness holding." *In re Sang-Su Lee*, 277 F.3d 1338, 1343, 61 U.S.P.Q.2d 1430, 1433 (Fed. Cir. 2002) (quoting *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25, 56 U.S.P.Q.2d 1456, 1459 (Fed. Cir. 2000)). "Evidence of a suggestion, teaching, or motivation . . . may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, the nature of the problem to be solved." *In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). However, the "range of sources available . . . does not diminish the requirement for actual evidence." *Id.* Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." *In re Mills*, 916 F.2d at 682, 16 U.S.P.Q.2d at 1432. *See also In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1457-58 (Fed. Cir. 1998) (holding a *prima facie* case of obviousness not made where the combination of the references taught every element of the claimed invention but did not provide a motivation to combine); *In Re Jones*, 958 F.2d 347, 351, 21 U.S.P.Q.2d 1941, 1944 (Fed. Cir. 1992) ("Conspicuously missing from this record is any evidence, other than the PTO's speculation (if that can be called evidence) that one of ordinary skill in the herbicidal art would have been motivated to make the modification of the prior art salts necessary to arrive at" the claimed invention.). Even a determination that it would have been obvious to one of ordinary skill in the art at the time of the invention to try the proposed modification or combination is not sufficient to establish a *prima facie* case of obviousness. *See In re Fine*, 837 F.2d 1071, 1075, 5 U.S.P.Q.2d 1596, 1599 (Fed. Cir. 1988).

¹ Note M.P.E.P. 2145 X.C. ("The Federal Circuit has produced a number of decisions overturning obviousness rejections due to a lack of suggestion in the prior art of the desirability of combining references.").

In addition, the M.P.E.P. and the Federal Circuit repeatedly warn against using an applicant's disclosure as a blueprint to reconstruct the claimed invention. For example, the M.P.E.P. states, "The tendency to resort to 'hindsight' based upon applicant's disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art." M.P.E.P. § 2142. The governing Federal Circuit cases are equally clear. "A critical step in analyzing the patentability of claims pursuant to [35 U.S.C. § 103] is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. . . . Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one 'to fall victim to the insidious effect of a hindsight syndrome wherein that which only the invention taught is used against its teacher.'" *In re Kotzab*, 217 F.3d 1365, 1369, 55 U.S.P.Q.2d 1313, 1316 (Fed. Cir. 2000) (citations omitted). In *In re Kotzab*, the Federal Circuit noted that to prevent use of hindsight based on the invention to defeat patentability of the invention, the court requires the Examiner to demonstrate a motivation in the prior art to combine the references that are alleged to create the case of obviousness. *See id.* *See also*, e.g., *Grain Processing Corp. v. American Maize-Products*, 840 F.2d 902, 907, 5 U.S.P.Q.2d 1788, 1792 (Fed. Cir. 1988). Similarly, in *In re Dembiczak*, the Federal Circuit reversed a finding of obviousness by the Board, explaining again that the required evidence of such a teaching, suggestion, or motivation is absolutely essential to avoid impermissible hindsight reconstruction of an applicant's invention:

Our case law makes clear that the best defense against the subtle but powerful attraction of hind-sight obviousness analysis is *rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references*. Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability—the essence of hindsight.

175 F.3d at 999, 50 U.S.P.Q.2d at 1617 (emphasis added) (citations omitted).

Nothing in *Linden*, *Breese*, or knowledge generally available to those of ordinary skill in the art at the time of the invention teaches, suggests, or motivates in any way the proposed

combination.² The Examiner's speculation that "it would have been obvious" to one of ordinary skill in the art at the time of the invention to combine the teachings of *Linden* and *Breese* to achieve Applicants' invention, in hindsight with the benefit of Applicants' claims as a roadmap for selecting portions of multiple references, is clearly insufficient under the M.P.E.P. and the governing Federal Circuit case law. Moreover, the Examiner's conclusory statements that the combination "would allow" a user to enter specified attribute [values] and that this "would be an essential element" are directly at odds with the governing M.P.E.P. and Federal Circuit guidelines. The fact remains that the prior art simply fails to provide the requisite teaching, suggestion, or motivation to combine *Linden* with *Breese* in the manner the Examiner proposes. In addition, strongly teaching away from the alleged obviousness of the proposed combination is the fact that both *Linden* and *Breese* actually teach away from the basic element recited in Applicants' independent claims that is the alleged basis for the combination.

For at least the above reasons, Applicants respectfully request reconsideration and allowance of independent Claims 1, 5, 33, and 48.

B. Dependent Claims

Applicants' dependent claims are allowable based on their dependencies and further because they recite numerous additional patentable distinctions over the prior art. Since Applicants believe they have amply demonstrated the allowability of the independent claims over the prior art, and to avoid unnecessarily burdening the record, Applicants have not provided detailed remarks concerning the dependent claims. However, Applicants remain ready to provide such remarks on appeal, if appropriate. Applicants respectfully request reconsideration and allowance of all dependent claims.

² If "common knowledge" or "well known" art is being relied on to combine the references, Applicants respectfully request that a reference be provided in support of this position pursuant to M.P.E.P. § 2144.03. If personal knowledge is being relied on to supply the required motivation or suggestion to combine, Applicants respectfully request that an affidavit supporting such facts be provided pursuant to M.P.E.P. 2144.03.

Conclusion

Applicants believe this case in condition for allowance. For at least the foregoing reasons, Applicants respectfully request full allowance of all pending claims.

If the Examiner believes a telephone conference would advance prosecution of this case in any way, the Examiner is invited to contact Christopher W. Kennerly, the Attorney for Applicants, at the Examiner's convenience at (214) 953-6812.

Applicants believe that no fees are due. However, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P.
Attorneys for Applicants



Christopher W. Kennerly
Reg. No. 40,675

CWK/bt

Correspondence Address:

 X Customer Number

05073

Date: 6/10/04